Information Technology Capital Plan

Department IT Capital Plan

Information Technology Capital Plan, Plan Year 2009-10 through 2013-14 Executive Approval Transmittal

Department Name
California Integrated Waste Management Board (CIWMB)

APPROVAL SIGNATURES

I am submitting the attached Information Technology Capital Plan as required by the State Administrative Manual Section 4904.

I certify that the IT Capital Plan was prepared in accordance with State Information Management Manual section 57 and that the proposed IT projects are consistent with our business strategies and information technology strategy.

I have reviewed and agree with the information in the attached Information Technology Capital Plan.

Chief Information Officer	Date Signed
Signed Original On File	**Signed Original On File**
Printed name: Gary Arstein-Kerslake	
Information Security Officer	**Date Signed**
Signed Original On File	**Signed Original On File**
Printed name: Tom Estes	
Budget Officer	**Date Signed**
Signed Original On File	**Signed Original On File**
Printed name: Tom Estes	
Department Director	**Date Signed**
Signed Original On File	**Signed Original On File**
Printed name: Mark Leary	

DEPARTMENT IT CAPITAL PLAN

Department Name and Org Code:	**Plan Year:**
Integrated Waste Management Brd 3910	2009-10 through 2013-14

1. **Summarize your organization's business goals and objectives below:**
   The Board promotes a Zero Waste California in partnership with local government, industry, and the public. This means managing the estimated 92 million tons of waste generated each year by reducing waste whenever possible, promoting the management of all materials to their highest and best use, regulating the handling, processing and disposal of solid waste, and protecting public health and safety and the environment.

2. **What are your organization's plans to upgrade or replace your IT infrastructure for the following? When responding, please indicate the timeframes of your intended upgrade or replacement efforts.**

   2.1. **Hardware**
   CIWMB maintains a consistent and well-managed hardware infrastructure. With few exceptions, desktop computers are replaced on a refresh cycle of approximately 4-5 years depending on availability of funds. All desktops are basically identical in configuration to facilitate management and support. The desktop computers were recently upgraded and are running Windows Vista and Office 2007. It is anticipated that these systems will be kept in place through approximately 2012, and will likely be upgraded to Windows "7" and Office "14" prior to the next equipment upgrade. Due to CIWMB's responsibilities related to the management of e-Waste, all CRT-type displays have been removed from service within CIWMB office space, and all staff use Flat Panel Displays. These devices are now several years old and will likely by replaced in 2009.

   Virtually all printers in use at CIWMB are network-attached HP devices which are managed via WebJet Admin. Specific focus is given to reduced energy consumption, reduced e-Waste, and recycling or reuse of "consumables".

   The Server equipment in use at CIWMB is primarily Dell equipment, with a minor amount of HP Tape Storage equipment. In all cases, an important operating principle is to use highly reliable but very low-cost and flexible equipment that can be repurposed as needs change. In a nutshell, it is a highly effective environment built using "commodity" components. Most servers in use at CIWMB have a useful life of 5-6 years. Two-thirds of the CIWMB servers are less than 3 years old. It is expected that the remaining one-third will be replaced or virtualized within the next 2 years.

   2.2. **Software**
   The CIWMB is part of the state leveraged procurement Enterprise Licensing Agreement with Microsoft for all desktop operating system software, desktop software such as Office 2007, Visio, Project, etc., and Server software licensing (Server 2008, Server 2003, SharePoint, SQL Server, etc.). The maintenance agreement is for a three-year period with annual payments. There is a moderate amount of other software licensed by CIWMB such as Adobe, Computer Associates ArcServe, Citrix, WebSense, etc. Generally, these licenses are renewed on an annual basis.

2.3.   Network

The core Cisco communications equipment in use by CIWMB (routers, switches, aggregators, Wi-Fi access points, etc.) is currently being upgraded as part of an agencywide and cross-organizational Network Refresh Project (0555-12). This equipment will be presumed to have a 7-8 year useful life. As part of this project, it is likely that greater shared use of network equipment will occur, thereby potentially reducing equipment replacement costs in the future. For all network equipment, there are existing SmartNet equipment maintenance agreements in place.

3. Existing Approved Reportable IT Projects

Provide the following information regarding your existing approved reportable IT projects on Table 1 on the following page:

- **Existing IT Project:** Cal/EPA Network Refresh Project - Cross-organizational project jointly funded by all organizations within Cal/EPA to replace the aging network equipment originally installed immediately following building construction in 2000.
- **Approved Project Cost:** $4,157,388
- **Project Number:** 0555-12
- **Implementation Date:**   8/4/07 – 12/31/08

4. Proposed IT Projects

After each proposed IT project has been documented by answering questions 4.1 through 4.15 of the attached IT Project Proposal Form, provide the following information on Table 2 on the following page:

- **The name of each proposed IT project:**
- **The priority ranking;**
- **The FSR submission date; and**
- **The estimated cost**

> Because CIWMB is a small-to-moderate-sized State organization in which all computing is Server-based, and most application development is now Web-based, virtually all IT application development projects undertaken by CIWMB are accomplished within delegated approval levels and do not meet "reportability" criteria of SAM 4819.37.

Table 1-Existing Approved Reportable IT Projects Summary by Department

Existing IT Project	Approved Project Cost*	Project Number	Implementation Date
Cal/EPA Network Refresh Project	**$4,157,388**	**0555-12**	**8/4/07 – 12/31/08**

*Note: If a Special Project Report (SPR) was submitted for review in July 2008 that includes project costs that differ from the last approved project document, enter both the last approved project cost and the revised project cost from the SPR under review.

Table 2-Proposed IT Project Summary

Proposed IT Project	Priority Ranking	FSR Submission Date	Estimated Total Cost
The CIWMB currently has no proposed reportable IT projects	-------------------------	-------------------------	-------------------------

PROPOSED IT PROJECTS

Complete this IT Project Proposal Form (questions 4.1 though 4.15 below) for each proposed IT project that meets the definition of a reportable project as defined in the State Administrative Manual Section 4819.37:

4.1.   **Proposal name and priority ranking:**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37.

4.2.   **Description of the proposed IT project:**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37.

4.3.   **Which of your department's business goals and objectives does this project support, and how?**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37

4.4.   **What are the expected business outcomes or benefits of the proposal as they relate to your organization's business goals and objectives?**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37

4.5.   **The following are from the State's IT strategic plan. Check the appropriate box(es) to identify the goals this proposal supports:**

☐ **Supporting and enhancing services for Californians and businesses**
☐ **Enhancing information and IT security**
☐ **Reducing state operational costs (leveraging, consolidation, new technology, etc.)**
☐ **Improving the reliability and performance of IT infrastructure**
☐ **Enhancing human capital management**
☐ **Supporting state and agency priorities and business direction**

4.6.   **Is the proposal consistent with your organization's Enterprise Architecture?**
☐ **Yes**
☐ **No**

If no, please explain why the deviation from the organization's Enterprise Architecture is necessary.

4.7. **Will the proposed system collect, store, transmit, or exchange confidential or sensitive information?**
☐ **Yes**
☐ **No**

4.8. **If this proposal is conceptually approved, what is the estimated date (mm/yyyy) the FSR will be submitted?**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37

4.9. **What is the estimated project start date (mm/yyyy) if the FSR is approved?**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37

4.10. **What is the duration of the proposed project?**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37

4.11. **Will the proposed project utilize the existing infrastructure?**
☐ **Yes**
☐ **No**

If no, please explain.

4.12. **Is the proposal related to another proposal or to an existing project?**
☐ **Yes**
☐ **No**

If yes, describe the related proposal or project and how it is related:
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37

4.13. **Describe the consequences of not doing this proposed project at the planned timeframe:**
The CIWMB currently has no proposed reportable IT projects per criteria of SAM 4819.37

4.14. **Check the appropriate box(es) to identify the proposal's funding strategy:**
☐ **Augmentation needed**
☐ **Redirection of existing funds**
☐ **Other (describe):**

4.15. What are the estimated cost and funding source(s) by fiscal year through implementation (information should be provided in the following format):

Fund Source	2009-10	2010-11	2011-12	2012-13	2013-14 and future	Total
General Fund						
Federal Fund	Because CIWMB is a small-to-moderate-sized State organization in which all computing is Server-based, and most application development is now Web-based, virtually all IT application development projects undertaken by CIWMB are accomplished within delegated approval levels and do not meet "reportability" criteria of SAM 4819.37.					
Special Fund*						
Total						

* Note: Identify the fund source and if the department is the sole user of the fund.

Enterprise Architecture

A.1. **Does your organization have documented Enterprise Architecture principles, strategies, or standards to guide decisions on technology projects?**
☒ **Yes**
☐ **No**

A.2. **Indicate on Table A-1 below, the completion status of the component Reference Models of your formal Enterprise Architecture efforts. If available, please submit a copy of your Enterprise Architecture document.**

Table A-1, Enterprise Architecture Completion Status

Component Reference Model	Status			
	Implemented	Implementation in Progress	Planned or Planning in Progress	Not Implemented and Not Planned
Business				
Service	See explanation below.			
Technical				
Data				

The Performance Reference Model (PRM) from which this Component Reference Model appears to be derived is "a standardized framework to measure the performance of major IT investments and their contribution to program performance." Given the small-to-moderate size of the CIWMB along with the server-based IT computing environment and predominantly Web-based application development, very few CIWMB IT projects ever require more than 12-18 months to implement. As a result, a large scale organization methodology such as that which follows from the use of the Component Reference Model (CRM) is not well-suited for CIWMB. The purpose of the CRM is to identify principles for the use and deployment of IT resources across the enterprise. To that end the CIWMB has developed policies and procedures that dictate the process for application development and deployment. That process is detailed below in section A.3.

A.3. **Describe the governance structure your organization uses to review and approve the Enterprise Architecture and any subsequent changes.**
CIWMB's "Web and Software Development/Architecture" process consists of the following nine phases:

> A. Project Intake/Initial Scoping
> B. Project Initiation
> C. Project Analysis: High-Level
> D. Project/Module Detailed Analysis
> E. Project/Module Development
> F. Project/Module Testing
> G. Production Deployment

Enterprise Architecture
H. Postdeployment Cleanup and Build
I. Maintenance

Each of these phases is further broken down into 5-10 subcategories, all of which are documented and indexed on the CIWMB Intranet. For external connectivity, CIWMB has incorporated the general design approach and architecture of the USEPA National Environmental Information Exchange Network (NEIEN).

The SASCore web-based application development framework/template in use by CIWMB is based on the rapid development framework "NetFrame" originally developed by the consulting firm (Magenic). It takes advantage of Microsoft's ASP.Net technology to speed application development. CIWMB's Information Management Branch (IMB) significantly enhanced this framework in developing SASCore, which provides an application development methodology for use by all developers that is open ended as much as possible, ensures consistent application user interfaces, coding patterns and facilitates developer teams and application maintenance. The SASCore framework provides common functionality like Security, common functionality as downloading files, structure for building pages, user interface independence functionality, as well as a comprehensive web development framework/coding advice.

All formal projects include a project agreement which identifies the key participants, roles, and responsibilities, including those of the Executive Sponsor. All application development staff resources are recorded per project in the Project tracking System. All project reports, schedule and tasks, and monthly status reports are available for review and are distributed to key Executive Staff. General project activities and IT infrastructure upgrades are presented and discussed during the bi-monthly Information Technology Advisory Committee (ITAC) meetings.

A.4. Does your organization have an Enterprise Architect? (if yes, provide their name, telephone number, and e-mail address below)
☒ **Yes**
☐ **No**

Name: Chris Allen
Classification: (Acting) Data Processing Manager III
Telephone Number: 916.341.6160
E-Mail: callen@ciwmb.ca.gov

Workforce Development, Workforce Planning and Succession Planning

B.1. **How is your Information Security Officer involved in proposed project development efforts?**

Depending on the nature of the project, the CIWMB Security Officer is involved in initial project meetings with the Project Manager to help define and plan the information security needs. Periodic reviews and updates are performed as needed.

B.2. **What are your department's core business principles, policies and standards related to information integrity, confidentiality, and availability and the protection of information assets?**

All staff are apprised of the information security policies and that all information contained in CIWMB automated systems is State property. CIWMB is very proactive in ensuring that all Internet access is filtered and logged through the use of industry-leading products such as WebSense, that all E-mail content is filtered through an external Anti-Spam service provider (MX-Logic), that all systems have at least two-levels of Anti-Virus filtering in place.

At the same time, most of the environmental regulatory information maintained by the CIWMB is public record information. CIWMB makes every effort to provide extensive public access to non-confidential information through the use of tools such as the CIWMB Profiles system. And, CIWMB is recognized as a leader among State agencies in terms of its use of low-cost but highly effective "collaboration" practices such as the use of Webcasting for all publicly noticed meetings, extensive use of Web Conferencing, use of tools such as SharePoint for internal and external customers, etc.

A relatively small amount of CIWMB's information meets the criteria for confidentiality or privacy. This information is stored and maintained in a secure manner requiring the use of passwords to control access to the information. For the sake of overall system security, staff are instructed about the importance of keeping passwords secure. For file services, Active Directory groups are used to restrict access to specific subdirectories. Full-word indexing is performed on all shared information resources using SharePoint Search Services, which fully implements security trimming reflecting Active Directory file permissions.

B.3. **If data within your department is shared with external entities, does your department implement data exchange agreements with these entities?**

☒ **Yes**
☐ **No**

If no, please explain.

☐ **Not applicable**

B.4. **How does your department ensure that software developers and programmers follow standards and best practices for Web, application, and system development?**

The CIWMB uses a formal, documented process and application development framework for project development.

Workforce Development, Workforce Planning and Succession Planning

B.5. **Does your organization have an Information Security Officer? (if yes, provide their name, telephone number, and e-mail address below)**
☒ **Yes**
☐ **No**

Name: Tom Estes
Classification: Deputy Director, Admin & Finance
Telephone Number: 916.341.6090
E-Mail: Testes@ciwmb.ca.gov

C.1. **Does your organization have a workforce development plan for IT staff?**
☒ **Yes**
☐ **No**

If yes, briefly describe it.
CIWMB has a documented policy and guidelines for Individual Development Plans (IDPs) and Performance Appraisal (Section 15012-01). Within the Web and Software Development/Architecture Section of the Information Management Branch, information is available to all staff regarding (1) management expectations, (2) staff proficiencies, (3) weekly technical session schedule and assignments, and (4) strategic plans and status reports. CIWMB's IMB has also been very successful in recruiting and retaining qualified staff because of the very modern server-based information technology infrastructure in place at CIWMB. All Cal/EPA organizations also participate in the Governor's Mentor Partnership program.

C.2. **Check the appropriate box(es) to identify which workforce development tools, if any, your organization is using for IT classifications:**
☒ **Training**
☐ **Upward Mobility**
☒ **Mentoring**
☐ **Career Assessments**
☒ **Knowledge transfer program**
☒ **Performance Evaluations**
☐ **Other (please list)**

C.3. **Does your organization have a workforce plan for IT staff (i.e., for Rank and File)?**
☐ **Yes**
☒ **No**

If yes, briefly describe it.

C.4. **Does your organization have a succession plan for IT staff (i.e., for Management)?**
☒ **Yes**
☐ **No**

Workforce Development, Workforce Planning and Succession Planning
If yes, briefly describe it. Given that CIWMB is a small-to-moderate-sized organization, there is not a separate succession plan for IT staff, but every opportunity is made to foster the skills of junior staff, provide training, and assign increasing levels of responsibility and challenges to groom junior-level staff for senior-level examination and advancement opportunities.

C.5. IT Staffing

Provide the following information in table C-1 on the following page:

- **The name of each IT classification currently in the organization.**
- **The number of staff in each IT classification in the organization.**
- **The number of staff in each IT classification eligible to retire in the next five years.**
- **The percentage of each IT classification eligible to retire in the next five years.**

Table C-1 — IT Staffing

IT Rank and File Staff Classification	Number of IT Rank and File Staff in Classification	Number of IT Rank and File Staff in Classification Eligible to Retire in Next 5 Years	IT Management Staff Classification	Number of IT Management Staff in Classification	Number of IT Management Staff in Classification Eligible to Retire in Next 5 Years
Senior Programmer Analyst	1	1 (100%)	Career Executive Assignment 3	1	1 (100%)
Senior Information Systems Analyst	2	2 (100%)	Data Processing Manager 3	0	
Staff Programmer Analyst	4	1 (25%)	Senior Programmer Analyst (Supervisor)	1	1 (100%)
Staff Information Systems Analyst	6	4 (67%)	Senior Information Systems Analyst (Supervisor)	3	2 (67%)
Associate Programmer Analyst	6	1 (17%)			
Associate Information Systems Analyst	8	4 (50%)			

Project Management, Portfolio Management and IT Governance

D.1. **Does your organization have a process for improving the alignment of business and technology?**
☒ **Yes**
☐ **No**

If yes, briefly describe it.
All new projects go through a "business intelligence" group called the Knowledge Integration Branch. This serves to coordinate and align application development between program staff and IT staff.

D.2. **What is the status of implementing a formal portfolio management methodology for technology projects within your organization?**
☐ **Implemented (Please describe)**

☒ **Implementation in progress (Please describe)**

As described previously, CIWMB's application development environment is increasingly Web-based and operates within a Server-based computing environment. Traditional "portfolio management" has less relevance in that environment. However, all systems are actively maintained and Web-based status reporting is provided for all application development projects. Furthermore, project collaboration and documentation is facilitated through the use of SharePoint project or "team" sites.

☐ **Planned or planning in progress**
☐ **Not implemented and not planned**

D.3. **List any automated tools being used for portfolio management. Enter "None" if no automated tools are being used.**
None

D.4. **What is the status of implementing a standard project management methodology for technology projects in your organization?**

☒ **Implemented (Please describe)**
The CIWMB uses a documented application development process to track application analysis, development and deliverables.

☐ **Implementation in progress (Please describe)**

☐ **Planned or planning in progress**
☐ **Not implemented and not planned**

Project Management, Portfolio Management and IT Governance

D.5. **Does the organization require its project managers to be certified, either through a professional organization (e.g., PMI, ITIL) and/or through completion of specified project management coursework:**
☐ **Yes**
  ☐ **PMI**
  ☐ **ITIL**
  ☐ **Agency-specified project management coursework (identify below)**

☒ **No**

D.6. **Select from the list other areas of training your organization requires of its project managers:**
☒ **Fundamental Project Management**
☒ **Systems Development Life Cycle**
☒ **Scheduling tool (identify below)**
  – Microsoft Project (where applicable)
  –
☐ **Project Performance Management (e.g., Earned Value Management)**
☒ **Business Process Analysis**
☐ **Requirements Traceability**
☒ **Procurement/Contracts Management**
☐ **Other (identify below)**
  –
  –
☐ **None**

D.7. **Describe project-level governance practices, including change management, issue resolution, and problem escalation.**
IT Project Manager discusses and gains acceptance with the Program Project Manager for all issues regarding project governance. Significant deviation from the published project requirements are grounds for this discussion.

D.8. **Does the project management methodology include processes for documenting lessons-learned and applying these to future projects?**

☒ **Yes (Please describe)**

The Postdeployment Cleanup and Build phase (H.) of CIWMB's application development process encourages the collection of information related to problems, issues, acceptance testing, prioritization of postdeployment fixes and minor enhancements. This information is all maintained in SharePoint and accessible to all team members and serves to function as a *de facto* documented post-implementation review process.

☐ **No**